

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004221**Date Inspected:** 20-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Kevin Chen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Assembly**Summary of Items Observed:**

This report serves to document the events occurring on this date at the following location. Caltrans Quality Assurance (QA) Inspector Robert Vatcher arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following: The weather today is 31C, clear with winds at 2-3 kph.

Orthotropic Box Girder (OBG) Fabrication

OBG Outside Facility (open air) North Side

QA arrived at OBG Outside Yard at the north side of the ZPMC facility at 0700 hrs. for the purpose of witnessing deck panel to deck panel production in accordance with WPS-B-T-2231-B-U2-F-1. QA observed ZPMC QC representative Chen Xi (CWI for this evolution) & AB/F QC Kevin Chen were available for this operation. As well, qualified welding operator ID 059464 was available and assigned to the corresponding flat welding position for deck plate DP588-001 to DP587-001-009 20 mm to 14 mm thickness. QA, upon cursory review of the welding apparatus set-up observed that the intended H14 welding electrode/ wire exhibited dirt and rust indications. QA immediately queried QC personnel if they could determine if there was an issue with the welding electrode. Mr. Chen could not ascertain what and if there was an issue so QA notified said QC that the welding wire was dirty and rusty. Welding operations, which had not yet begun for the morning operations were put on hold, by QC until new, clean wire was appropriated. Please see the incorporated photo below, taken on this date, for further

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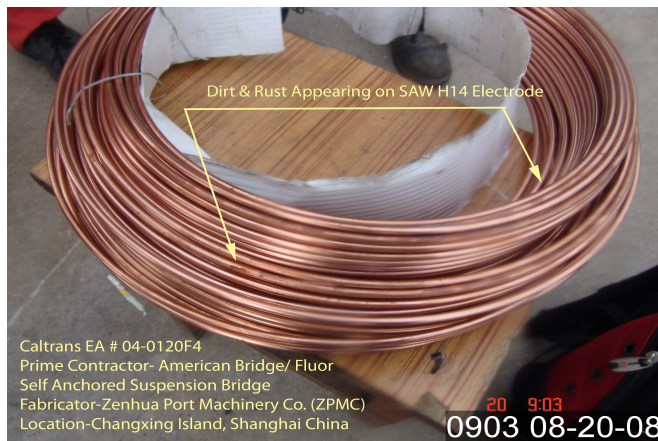
information.

OBG Assembly Bay II

QA was tasked with performing witnessing of operation in the Orthotropic Box Girder (OBG) Fabrication Assembly Bay II. QA observed that previously joined Deck Panels were set into place atop segment 4AW. QA performed a cursory inspection/ review for fit-up and placement of said Deck Panels.

As well QA observed welding operations being performed in the north end of the OBG facility. The following parameters were observed and recorded. SAW welding of Deck Panels DP74A-001 to DP75A for segment 019*-004 14 mm to 14 mm thick A709 gr. 345 steel. Qualified welding operator Wong Lanying was present for welding in the 1G position with H14 electrode to welding procedure specification (WPS) WPS-B-T-2231-B-U2-F-1. The following welding parameters were also observed and recorded by both QA & QC. Amperage at 585, voltage at 32.1 and a travel speed of 485 millimeters per minute. Both ZPMC and AB/F QC were present and their names are, respectively, Shi, Lei and Wang, Heng. Mr. Wang's American Welding Society pocket certification card signified that eye correction was not required for inspection purposes however, Mr. Wang is wearing eyewear with corrective lenses.

The above mentioned items, as observed by QA with corrective action taken by QC personnel, appear to be in compliance with the contract documents.



Summary of Conversations:

No relevant conversations this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 138-1694-2685, who represents the Office of Structural Materials for your project.

Inspected By: Vatcher,Robert

Quality Assurance Inspector

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Reviewed By: Cuellar,Robert

QA Reviewer